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California GARDEN

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UNIVERSITY OF CALIFORNIA
LA JOLLA, CALIF.

DECEMBER 1937

The Yuletide Tree

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Flower Arrangements

San Diego Floral Association

Meets

Third Tuesday of Each Month at Balboa Park

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The Yuletide Tree . . . .

BY THOS. F. McMULLEN

There will be no shortage of Christmas trees when jolly St. Nick comes down the chimney this year. Every family that can possibly have a tree will do so—for Christmas is not Christmas without a tree decorated with brilliant ornaments and laden with candy and toys for the little ones.

The average American father or mother spends $1.00 for a tree and they prefer one 6 to 8 feet high. The choice types are silver tip firs and red firs and they come from northern California, Oregon, Washington, Montana and British Columbia. Millions are shipped from the northwest to every city in the country, to Panama, the Hawaiian and Philippine Islands, Bermuda and South America. It is estimated the bill to American parents will total more than $5,000,000 this year.

One might suspect that this business is seasonal; but it lasts the whole year through. Orders start coming in for the trees in January; in July they are selected and in November cutting and shipping begins. The majority of the trees are cut systematically from privately owned lands and the rest from government forests which the forest service wants thinned out. Contrary to common belief there is no wanton destruction, for the trees are selected with great care. It is only the persons who go to the woods and cut their own trees who are liable to destroy trees that have future commercial or aesthetic value.

Of late there has been a movement on foot for home owners to plant living Yuletide trees. This idea is highly commendable and the community which can boast a number of such trees is indeed far sighted, for the pleasure continues throughout the year and a lesson is taught in consideration for our plant life.

One of the most notable plantings in the world is the Street of Christmas Trees in Altadena set out in 1882 by Captain Fred J. Woodley. This is a planting of deodar cedars, Cedrus deodara, from the Himalaya Mountains. Captain Woodley brought the seeds from India where he had seen the deodar growing. He lined the driveway of what was then his large ranch, but the thoroughfare is now a public highway and the immense specimens still stand, growing in grace each year. For more than a decade they have been electrically lighted during Christmas week to produce one of the most striking and beautiful sights to be seen anywhere.

The deodar, or Himalayan cedar as it is known, is perhaps the most graceful of conifers. Its color is a beautiful silver green, with pendant branches which attain a pyramidal shape. Eventually in cultivation it will attain 100 feet but in the Himalayas it is said to reach 300 feet. There it forms picturesque forests at an elevation of 6,000 to 10,000 feet where the ground is often blanketed with snow for months at a time. It is the most rapid grower of all cedars. In India the tree has a sacred significance; here it can be a significant part of a conifer group.

A close relative of the deodar, which also makes a lovely Christmas tree is the cedar of Lebanon, Cedrus libani. It is a native of Western Asia, and is often alluded to in the Bible. It closely resembles the deodar but has darker foliage and is more open in habit. Still another relative is the Mt. Atlas cedar, Cedrus atlantica, which is similar to C. libani but whose foliage is a lighter green.

A native of California, Libocedrus decurrens, the incense cedar, makes an excellent lawn specimen for Yuletide decoration. It forms a tall pyramidal tree whose fragrant foliage is a deep soft green.

Another native Californian, the Monterey cypress, Cupressus macrocarpa, makes a fine specimen when young. The various thujas or arbor vitaes also are frequently used as living expressions of the Christmas spirit.

The live trees may be purchased balled in burlap and it is possible to keep them for several weeks in a tub filled with moist shavings or peat before they need be set out. Thus the first year the live trees can serve as an indoor tree and thereafter it can be one of many trees in your Christmas grouping, each reminding you of happy holiday seasons of other days.

The Frost Broadcasts . . . .

BY DEAN BLAKE, WEATHER BUREAU

Between November 15th and February 15th each season, through the cooperation of radio station KFSD, the Weather Bureau broadcasts frost warnings and minimum temperature predictions to the citrus and vegetable growers of San Diego County. This season they go on the air at 7:30 p.m. The key stations for which temperatures are predicted are: Bonita, Chula Vista, El Cajon, Escondido, Rancho Santa Fe and Vista.

This service has become of real value to growers, but many plants and shrubs, lost during the cold snaps which occur almost every year, could be saved if greater advantage were taken of these warnings by gardeners and florists. In the hope that it will lead to more general use of the broadcasts, the following brief explanation is given.

On nights when the temperature will remain above the freezing point, a brief forecast only is sent out, but when a minimum of 32 degrees or lower is indicated at any of the stations, the predictions include a synopsis of local weather, the wind direction and force, dew point temperatures at some of the stations, ceiling heights, the time firing will begin, and the minimum temperatures to be expected at the key stations.

Freezes in California are invariably the result of an abnormal southerly movement of intensely cold air from the polar regions. Usually polar air reaches us after a long journey over the Pacific Ocean, and it becomes appreciably warmer during its passage over the relatively warm water surface. Occasionally, however, a cold mass moves southward from the Canadian Northwest or Alaska, and overspreading far western United States, brings abormally cold weather to the regions involved. It is the rather difficult job of the forecaster to trace day by day the movement of these cold masses. This is accomplished by means of weather charts, and predictions cannot be made in any other way. Unfortunately, paucity of data and in the number of reports tends to make them empirical rather than scientific, and is largely responsible for errors.

Once the cold is upon us, the lowest temperatures expected in the various districts of the County are determined from the observation made at sunset in San Diego, and are based largely upon the wind velocity and the dew point.

Winds by mixing the warm and cold air raise the temperature materially, and often an imperceptible movement will give rise to puffs that will cause rapid fluctuations. Hillsides normally cause descending currents in which the air becomes heated by compression, with the result that protection is often unnecessary on high ground while at the same time in quiet pockets or valley bottoms firing may be carried on for hours.

The dew point is valuable in the forecasting of minimum temperatures because it is the index to the amount of water vapor in the air—the greatest factor in the control of heat radiating from the ground. When the water vapor content of the atmosphere is high, radiation is retarded and the temperature fall will be slow, but when it is low, and the air is quiet, there will be a steady fall in temperature which may continue until sunrise. That is why freezes always occur with low dew points. High dew points, on the other hand, are indicative of the formation of clouds or fogs, a condition unfavorable for the occurrence of frost or low temperatures.

Another important and little understood element in the broadcasts is the ceiling. The efficiency of firing depends upon the heat liberated, not the smoke which has little or no protective value, and the method that produces the greatest amount is the most desirable. On ordinary frosty nights, as a rule, the coldest air is nearest the ground, and temperatures increase with elevation. The warm air under these conditions rises until it reaches a stratum with the same temperature, when it begins to build downward, so that the higher the ceiling (the height at which the heat ceases to rise because it has reached a layer of the same temperature) the greater the amount of heat which must be liberated before the level of the trees will again be reached. During major freezes, however, the cold air extends to great heights, so they are always accompanied by high ceilings. Under these conditions there is a marked decrease in temperature with height and no inversion, and heating is less efficacious. Low ceilings, usually, occur after warm, dry days, when rapid cooling takes place on low ground, and the hills lie in the warmer stratum above.

WARNING PINK COLOR ADDED TO ARSENICALS

The housewife who carelessly uses lead arsenate or calcium arsenate in cooking instead of flour in the future will have no excuse except that she is color blind, for manufacturers of these insecticides have decided to color them a distinctive pink.

Many cases of accidental food poisoning occur because arsenicals are stored in pantry shelves alongside flour, soda, baking powder, and similar white powdered foods. The arsenicals are likewise white powders, and have no distinctive odor to warn the careless cook.

Calcium arsenate is used widely for spraying and dusting vegetables for pest control, and lead arsenate is used for fruits.

For years the Federal Food and Drug Administration has warned the public of this danger, but reports of food poisoning continue to appear in the papers. Only a few weeks ago several persons working in a mining camp in a western State were seriously stricken after eating flapjacks in which an insecticide was used instead of flour.

Regardless of the precautions of manufacturers, says W. G. Campbell, Chief of the Food and Drug Administration, arsenicals and other dangerous insecticides should be kept out of the reach of children. The garage or shed is the place for insecticides, not the pantry shelf.

Garden Strolls With the Editor

Hardly have time to put away the gourd and vegetable arrangements we made for Thanksgiving when it is time to be thinking of Christmas arrangements. Let's all go to the 2nd Christmas decorations exhibit sponsored by the garden club of the Junior league. Remember last year the proceeds went to our Society and the event was such a success that they are repeating it this year.

Time to be thinking of the kind of tree you are going to have this year and if it is to be a live one, make your selection early.

Seems there are plenty of berries for decoration this year. The California holly in our canyon is loaded with brilliant red clusters and the Nandina has a good crop too. Miss Sessions says the Nandina is her favorite berried shrub and she always has sprays to give away when you visit her nursery at Christmas time.

Would like to see more Oregon grape tried in our gardens. This holly-leaved shrub is a fair substitute for the real English holly. I'm fond of holly-leaved shrubs anyway. I like Chorizema ilicifolia and the mountain cherry, Prunus ilicifolia. Then there are various barberries which I don't think have had a fair trial in our section. There is a new one, Berberis rugidicans, which becomes brilliantly colored with hues of red, crimson, yellow and green. Makes ideal material for decoration in the home. The bright yellow flowers in clusters in spring are followed by showy red fruits.

Then there is the new Hollyberry Cotoneaster, Cot. bullata which is one of the best of the red-berried shrubs and thrives best in shady places. It bears great clusters of large, shining, richly colored fruits.

And we mustn't forget the old fashioned Jerusalem cherry for Christmas color and the newer ornamental peppers.

Have you seen the new book by Alfred C. Hottes, Associate Editor of Better Homes & Gardens? It is titled 1001 Christmas Facts and Fancies and it covers Christmas decorations, celebrations, legends, recipes and a number of other helpful suggestions for Christmas celebrating. He was working on the book when he visited me a year or so ago and from what I learned about it then it is a book that will be read and reread at every Christmas season. A. T. De La Mare Co. are the publishers, 448 W. 37th St. New York City. Please mention our California Garden when ordering the book.

See you at the December meeting.

(Cover cut courtesy Marston Co.)

San Diegans in Print

The November Sunset should be titled the San Diego issue for a number of local people are represented. First we came across a picture of Mrs. Greer with this caption: Mary A. Greer, the cherished president of the San Diego Floral Society, admiring a rare aloe.

Turning to the next page we found our own Alfred D. Robinson of Rosecroft telling us about lathhouses and lathhouse gardening.

H. M. C. has a note in "Kitchenews" and Paul Bull tells us how to cook coots.

Finally the cover and picture giving ideas for a Big Game luncheon feature some of the artistic efforts of the students of Ilse Hamann at the San Diego State College. Quite a representation.

Incidently the pictures of the students' work are an indication of the interesting things being done under Miss Hamann's direction. I have asked her to write us something on arrangements so you can watch for it. Ed.

CHRISTMAS DECORATIONS

The Garden Club of the San Diego Junior League, Ltd., will sponsor the League's second Christmas decorations exhibit to be held on December 10-11 at the home of Mr. and Mrs. Phillip Bartlett. The display will include Christmas gift wrappings, table decorations holiday punch bowl arrangements, miniature Christmas trees and mantel settings.

November Meeting

The November meeting was featured by an informal but very interesting talk by Mr. E. S. Jernegan who gave the highlights of his recent motor trip to Mexico City. He portrayed the floral attractions of the route in such an enticing manner that Mrs. Greer was moved to suggest that our Society make a joint pilgrimage down there so that we might enjoy the floral beauty together.

Mr. Jernegan told of stopping at the famous Rose Tree Inn at Tombstone where a white Lady Banksia rose covers an area 40 by 50 feet. He told of the different types of tropical vegetation encountered along the way and of the sights to be seen in and around Mexico City by garden-minded people. The ease of travel and hospitable treatment by the people emphasized by Mr. Jernegan made us all resolve to include Mexico City in our travel budget.

In the business section of the meeting Mrs. Greer reported on the Chrysanthemum show and attributed the success of it to the Arthur and George Marstons. The Marston gardens provided a lovely setting for displaying the blossoms and our thanks are due the Marston family for their splendid cooperation.

Mrs. Greer announced that $57.00 worth of plants were sold—all donated by local nurserymen. In all $109.50 was realized from the show.

All members were urged to bring in another member for the Christmas meeting which will be in the nature of a Christmas celebration. There will be plants for everyone, a berried plant display and talks by John Morley and park attendants on shrubs in bloom at this time. Christmas carols will be sung and of course we'll have a tree with all the trimmings.

In January Mrs. Olsen will talk on the gardens of Norway.

Senator Harper gave a nice tribute to Miss Sessions, who, we were sorry, was unable to attend the meeting.

The card party was announced for Friday Nov. 19th. There will be 25 tables and a cyclamen for each table as a prize.

The Christmas Flower

By Thos. F. McMullen

When Dr. Joel Roberts Poinsett introduced to this country the brilliant flower which bears his name he hardly could have foreseen the immense popularity it was to attain. It was in 1826 as U. S. minister to Mexico that Dr. Poinsett first saw this glorious flower growing wild on the hillsides and decided to send it to his estate at Charlston, South Carolina, to be tested. In 1833 he gave his poinsettias to Robert Buist, a Scotch nurseryman of Philadelphia, who propagated and distributed them to the gardeners of this country.

The poinsettia flowers readily under glass in northern latitudes and in the warmer climes it is an excellent garden subject, for it is a prolific bloomer and an unusually fast grower. Coming into bloom at Christmas time with holiday colors, it has been acclaimed the true Christmas flower.

In Mexico the poinsettia is a great favorite, bearing many pretty names, i.e., la flor de Santa Catarina (St. Catherine's Flower), la flor de Noche-buena (Flower of Christmas Eve) and la flor de Pascua (Christmas Flower). At Christmas time the long flower stems are used to decorate the Mexican churches.

The visitor to southern California is surprised when he sees this plant in every garden growing to 15 feet with little or no care. He is equally surprised when you tell him that the flower of the poinsettia is inconspicuous. "Why," he exclaims, "it is the most conspicuous thing in the landscape."

Then in your best botanical manner it is necessary to explain that it is the bracts or true floral leaves which give the plant its brilliance and not the flowers, which prove to be the little yellowish buds in the center of the involucre. Another unusual thing about the plant is that the bracts are not always red. Due to varigation they might come pink or even white.

Botanically the poinsettia is Euphorbia pulcherrima and is a close relative of the Crown of Thorns, Euphorbia splendens—an interesting relationship because of the religious association of both plants.

The poinsettia grows very easily from cuttings taken from the plant in February. These cuttings which are cut with 4 or 5 eyes should be allowed to cure for 2 weeks and then may be planted so that 2 eyes remain above the ground. The plants flower the first year.

Established plants should be pruned each year to produce an abundance of flowering wood. This is done after the plant has bloomed and lost its foliage. By cutting back to within a few eyes of the old wood vigorous new shoots develop which will produce flowers 15 to 18 inches across.

The brilliance of the poinsettia makes it hard to combine with other plants so it should be used carefully in the landscape picture. Too often we see the plant lined up against homes with a magenta bougainvillea overhead and some red geraniums nearby, without any thought of how they are going to look at Christmas time.

Poinsettias show to best advantage when they are massed together or are displayed against a background of solid green shrubbery. If used with flowering shrubs they should be combined with white flowering species. Plant this exotic shrub in an adequate setting and your garden will have a "Merry Christmas" to say to every passerby.

Fiji Flora

Navua
via Suva
Fiji, 19 September, 1937

The Editor,
California Garden,
San Diego, Calif.
Dear Sir:

Through the courtesy of the Secretary of the "California Garden" I have been for some time in receipt of copies of the publication, and find it most interesting and informative.

It therefore occurred to me that perhaps some of your readers would care to hear about this somewhat remote place in which I reside, viz the Fiji Islands.

The particular island on which I

(Continued on Page 7)

Root Magic

Chemical Information Service

A new chemical that does magical things with plants is an Alladin's lamp for plant lovers and collectors.

Trees, shrubs, plants heretofore difficult as well as costly to propagate can now be enjoyed by gardeners of moderate means because of this new substance.

This chemical, indolebutyric acid, commonly known as auxilin, is applied to a slip or cutting and in a short space of time a heavy beard of roots appear, even on cuttings of plants which ordinarily can never be made to root. And the plant grown from auxilin treated cuttings is hardier, sturdier and healthier than plants not so propagated.

Science, after fifty years of patient and trying research, after endless experiments and numberless failures, has triumphed again and solved one of nature's mysteries. It came about in this way.

In 1887, Sachs, a brilliant fellow connected with the Botanical Gardens in Java, concluded that all plants naturally contain some growth stimulating and regulatory substance which control their rooting system. Although he failed to find it, he gave other scientists a goal to strive for.

A generation later this substance was discovered by Dr. F. W. Went of California and Dr. K. V. Thimann of Harvard, a strange chemical found in the growing tips of plants. Named auxin after the Greek word meaning aid, this chemical seemed to control the growth and root formation of plants. Without it plants would not grow and lost their ability to strike root.

Later another trail was uncovered, a substance found in animals had an auxin-like effect on plants. It was therefore called hetero-auxin. Following a period of frenzied research, Dr. R. H. Manske, National Research Council, Ottawa, Canada, finally produced indolebutyric acid, a synthetic auxin-like chemical, which outdid the natural auxins in stimulating growth; so much so indeed, that if it is properly applied to the stem of a plant a heavy

growth of roots will grow at the place of application.

What the discovery of this acid means to plant collectors may be best illustrated with the Colorado blue spruce. This is an evergreen that cannot be ordinarily grown from slips or cuttings. Commercially, the tree is produced by grafting, a long, tedious and uncertain method which makes the cost of the tree virtually prohibitive; indeed puts it beyond the purse of many persons.

Because of the discovery of auxilin, this shrub as well as most hard to propagate and rare plants may now be grown by everyone. Using auxilin propagation methods nurserymen will be able to reduce prices drastically and any gardener who can obtain a cutting of any such plant can easily make it take root by treating it with the acid, now at long last obtainable at a very low cost.

Gardeners have truly had an Aladdin's lamp given to them by science.

STANFORD'S GREEK AMPHITHEATRE

If any of you are planning on going north for the holidays be sure to visit the Greek ampitheatre on the Stanford campus. This project was designed and built by Leslie E. Kiler, a former Stanfordman, and though completed just in time for commencement of this year, the theatre already has a look of age about it.

On the grass terraces there is room for 10,00 people to be comfortably seated and the stage will hold 1,000 people. The slopes leading to the stage are planted in a suitable naturalistic manner.

This project is all the more remarkable when you realize they took a perfectly level spot and dug it out to give the amphitheater effect. By the clever approaches there is no feeling of walking up an incline (which you actually do) to get the perspective on the vista below you. Any local gardener seeing it will wonder why we haven't created something like it here when we have so many canyons offering natural settings.

White Margins

By Ruth R. Nelson
Rancho Santa Fe, California

In Southern California where the gardens will never lie beneath snow, can you imagine a garden dressed all in white? Toward the end of autumn, with dahlias still in blossom, and chrysanthemums ready to lend their additional colors, the story of a white garden may sound like an impossibility.

It was strangely surprising last spring to discover that an awakened interest on the part of this writer, in various white flowers useful for exhibition purposes, had resulted in an amazing assortment of white flowering plants in her garden, which gave it at that time neither a pleasing, nor effective atmosphere.

But what fun the amateur gardener has while learning the rules in regard to this and that angle of such a pleasant hobby. And meanwhile often hearing the caustic comments made by garden devotees who pay regularly for expert landscape service, yea are disappointed just as frequently as we who experiment alone.

Can it be that white flowers here in Southern California time their blossoming season to match the snow and ice which still covers gardens east and north? First to blossom were my snowdrops—lovelier last spring than ever before; then potted white geraniums (glorious single ones) started a continuous exhibition of bloom;; borders of white violets provided exquisite little bouquets upon the dining-table mirror. For the first time a clump of callas next showed color (white); and bees and blossoms clouded the lovely arching branches of two fine old leptospermums. Hardy arctotis grouped nearby pretended to be white, and were amongst "the flowers that went to the show," but these were decidedly off-color in the garden group—their bluish centers and shaded petals having a discordant effect beside the clear white of leptospermum and richer cream-white of the callas.

A succession of various varieties of narcissus, freezias, marguerites, double-white geraniums, fairy lilies, and flowering shrubs of different kinds provide white in my garden continuously, but we hope that the changes which have been made this year will never again give the result of marginal beds clothed completely in white.

Note: The name "snowdrop" slipped into this article through habit. Miss Sessions calls this little fower "snowfake," the "Fairmaid of February," botanical name Leucojum vernum, the green spot on the petals' tips being responsible for the term vernum.

SOIL CONSERVATION MEN GIVE "PORCH VINE" A JOB

An old familiar ornamental vine, also in use in the South as a hay and pasture crop since early in the twentieth century, has been put to work by the Soil Conservation Service of the Department of Agriculture.

The vine is kudzu, more commonly known throughout the Southeastern States as "porch vine." Soil conservationists found here ready made a lush vine that produces a rapid, dense growth to anchor the top soil to southern farm lands. They needed a plant that would "pay its own way," contributing something to the farming crop and also helping rebuild soils impoverished by erosion.

Kudzu meets these requirements. In the Southeast it grows under almost any condition, on rich land or poor land. Under favorite conditions the vine often sends out runners 60 to 70 feet long in a single season. They take root every few feet at the nodes, literally "roping down" the soil. As a legume, kudzu restores nitrogen to the soil, and for some time has been known as an excellent forage crop.

The Service is using kudzu extensively throughout the Southeast in gully control. The vines cover a gully with a dense mat of vegetation in a short time and check further cutting. Kudzu is aso used on steep slopes and other areas damaged by erosion.

Scabiosa japonica gives beautiful lilac-colored blooms all summer and even in winter will supply many cut flowers for the house.

Forcing Bulbs For Winter Bloom

By The Master Gardener

Bulbs may be forced in a number of mediums—they may be grown in soil, in bulb fiber, or in pebbles and water. However, the gardener who uses soil for a forcing medium has a greater range of material to select from than when fiber or pebble-and-water culture is used, since only certain types of bulbs are adaptable to these two latter methods. In using soil as a potting medium, mix a small amount of complete, balanced plant food thoroughly with the soil before potting the bulbs.

In all methods, however, these two fundamental rules must be followed for success:

1. Secure good healthy bulbs. Better and stronger bulbs are needed for indoor culture than when the bulbs are grown out-of-doors. This applies particularly to bulbs such as the Paper-White Narcissus, Chinese Sacred Lily, and other bulbs grown in pebbles and water, for they get no nourishment other than that contained in the bulb itself.

2. After planting, be sure that a well-developed root system is established before permitting any top growth. A good root system may be established by placing the pots or other containers in which the bulbs are planted in a dark closet, or cellar, where the temperature is from 40 to 50 degrees F. Or, better still, bulbs potted in soil may be buried out-of-doors in a trench 2½ to 3 feet deep where drainage is good. Bulbs should be sufficiently rooted eight to ten weeks after planting—time will vary with the type of bulb. If plants are kept in too warm a place before sufficient growth has been made, the leaf growth may be weak and the flowers, if any, will be stunted.

After a good root growth has been made, the pots should be taken up and put in a semi-dark, cool place. As soon as top growth is well started, apply a feeding of complete balanced plant food and give more light, but continue to keep in a cool room. When the flower buds begin to show clearly, the plant can gradually be brought to direct sunlight. Hyacinths especially should not be brought into strong light until the flowers spike is well advanced, otherwise the top few bells will turn green.

When about to burst into bloom, the pots may be brought into the living room. Keep well watered until through blooming. If the atmosphere is kept cool, the bloom will last longer.

Feed Trees Now

By The Master Gardener

If you will observe the trees about you, you will notice some which are showing the effects of drought conditions. These trees are weakened to such an extent that they become easy victims to disease, and do not have sufficient vitality to produce luxuriant foliage, with healthly green color. The leaves on these weakened trees are dull and lifeless, very small ,and they drop from the tree early.

To bring injured trees back to a healthy, vigorous condition, one of the wisest things you can do is to feed them at this time. Use a complete balanced plant food, and apply making holes about 2 inches in diameter and 12 to 18 inches deep, in a zig zag fashion, slightly inside and outside of the branch spread. Holes can be made with a pointed instrument such as a crowbar or an earth auger. Fill holes with a mixture of half plant food and half soil. Then water. In figuring the requirements of a tree, allow 1 pound to each inch of circumference of the trunk, measuring the trunk 4 feet above the ground.

Next Month

Associate Editor John Wimmer writes on "Presidio Hill". Watch also for the continuation of Mr. R. T. Jumper's article on Pest Control.

Other interesting features start the year out right. Why not give "California Garden" to some friend for Christmas?

50th Anniversary

Over 400 guests were at Pacific Beach's 50th Anniversary dinner given on Nov. 8 at the Brown Military Academy.

Miss Kate O. Sessions was our honored guest. She decorated the head table with sprays of Podocarpus elongatus and as usual gave a description of the plants on hand and suggested that anyone traveling abroad should bring seed and rare plants.

The city and county dignitaries were well represented.

Dr. Ralph Roberts, president of the Chamber of Commerce, opened the meeting, introducing and recalling the old timers of Pacific Beach.

Henry C. Gardener was master of ceremonies.

Among those present who made short talks were Mrs. Florence Woodward Wetzell who was the first baby born in Pacific Beach (here); Julius Wagenheim, San Diego civic leader; Mary A. Greer, who on behalf of the San Diego Floral Association gave Miss Sessions two rare plants for her garden.

Mrs. Winifred Davidson of the San Diego Historical Society told of the opening of the college on June 28, 1888.

Senator Leroy A. Wright, president of the San Diego Historical Society announced the formation of a fund to pay for a secretary to write Miss Sessions' memoires.

Mrs. F. T. Scripps, a resident for 37 years, told of the removal of the lemon orchards for homesites and cutting down of the large pepper trees to put in sidewalks.

The oldtime songs and music were provided by Mrs. L. L. Rowan, soloist, Miss Nell Cave, accompanist, the Academy orchestra and the Pacific Beach Choral Club, Miss Helen Gardener, director.—D. K., Pacific Beach.

Have you ever considered the dwarf citrus for landscape use? There are three especially recommended, the dwarf Meyer lemon, a dwarf orange similar to this, and the Rangpur line. All are useful as hedges or as potted specimens and are decidedly ornamental

Flower Arrangement

By Frances Lowe Robinson

There is a definite knack or flair to flower arrangement though anyone who is really interested can, by observation and a bit of study, do an interesting job. It's like cooking oysters or making a hat. The desire, and study of arrangements if you haven't much originality or a feeling for design and color will give satisfying results.

There is no rule of flower arrangement. It's up to the individual to satisfy his sense of balance, proportion and harmony. There are certain types of bowls or vases which are more interesting with certain types of leaves and blossoms and fruit—frail glass with delicate flowers, simple large pottery for heavier plants. Also an arrangement may be charming in one spot and altogether lost in another part of the room.

Keep arrangements simple for your home. In a shop one may use elaborate decorations to advantage but it's likely to overpower us in the living room or bedroom.

I think adorable amusing things can be done with bathrooms and kitchens—a tiny bowl of sweet william, or daisies with parsley as foliage can liven up a kitchen charmingly.

If no flowers are available don't have the idea there's nothing to put in a vase. Castor beans, fern fronds, berries, weeds of all descriptions can be used most interestingly.

Keep your containers simple; they should be a compliment to the flowers, a part of your arrangement but subordinate to the flowers themselves. You can do anything with color, e.g.—compliment vase with blossoms. But remember, keep all colors warm, (rust, orange, yellow, henna, red) or cool, (violet, blue, blue-green). You may use dark flowers in a pure white bowl or a deep bowl with white flowers.

You don't have to use expensive bowls or flowers from a florist to have a charming arrangement. I have used a flat pewter plate which cost me one dollar, with deep violet and red pansies floating in it. I have a yellow Chinese bowl, 35c, in which I put 3 jonquils and 2 or 3 tall straight leaves. Cacti, succulents, herbs, any leaves, are lovely when used with imagination.

There was a time when I couldn't cook. But by dint of trial and error, sometimes the use of a recipe and sometimes my own imagination and mental taster, I can now serve a very palatable and at times most interesting meal.

It's the same idea with arranging flowers. Some people have a flair, an originality and perception others lack. And some have to observe and study before they can obtain satisfying results.

Fiji Flora

(Continued from Page 4)

have my home is known as "Vitihevu," the largest and principal one of the group, and is situated well within the tropics; although a tropical area it is really subtropical both in climatic and other conditions.

We have a well distributed rainfall of not less than 90 inches per annum, and the thermometer seldom or never registers more than 90 degrees or falls below 50 degrees, so it will be readily understood most tropical or subtropical flora are easily grown, but strange to say the people generally do not appear to engage in that most interesting and entrancing occupation of gardening.

Nevertheless we have many indigenous plants which are worthy of notice, some of them very aromatic, amongst which may be mentioned the "Ivi," tree or Tahitian chestnut, botanically known as Inocarpus edulis. This is a fairly large tree growing to a height of about 40 to 50 feet and when in flower it is a most entrancing sight and very aromatic, the perfume permeating the atmosphere for a considerable distance. Then we have the breadfruit tree, the fruit of which forms the principal diet of the natives, together with many cocnut palms.

Another forest tree locally known as "Wi," pronounced "Wee" but botanically called Spondias dulcis, bears a fruit which has a pleasant though somewhat acid flavor and which makes a most excellent preserve.

Among the useful and durable timbers we have the "Buabua" botanically known as Guettarda speiosa, the timber of which is immune from insect attacks and is remarkably durable. It is much used for fencing and building purposes.

Another handsome indigenous timber is known as "Yaka" locally otherwise as Dacrydium elatum. The timber is used to a considerable extent for furniture, for it has a most beautiful grain and polishes well, the wood being on the heavy side.

Amongst the flowers we have many varieties of Hibiscus, their blooms highly prized and appreciated; then the imported Caladiums which thrive extra well even growing amongst the pastures, their multi-colored leaves giving quite a gay appearance. We also have two or three different varieties of Cassia, and some dahlias do fairly well, but roses and pansies and such like are difficult to grow, and produce only mediocre blooms.

When the writer came to Fiji in 1917 he noticed there was a dearth of many valuable timbers which were likely to succeed in Fiji so set about introducing some of the Australian Eucalyptus and other economic plants from tropical Australia and went to not a little trouble to procure seed of different varieties. The result has been a fair measure of success.

Some of the varieties grown from seed are thriving, some of them reaching the inflorescence stage, amongst them may be mentioned the Bunya Bunya pine, Araucaria bidwilli, the cypress pine Callitris glauca, the hoop pine Araucaria cunninghami, the silk oak, Grevillea robusta and Casuarina torolusa, besides numerous others all of which are thriving.

The writer will be pleased to impart any other information within his power to those who may desire such.

Yours faithfully,
Richard B. Howard

Garden combination . . . In planning for the coming spring, a lovely effect can be achieved by planting the eschscholzia Enchantress in masses behind Nepeta Mussinii.

Problems of the Soil

By R. R. McLean

Question: Will you please state in your column of "Problems of the Soil" what seed is best for lawns where water must be used sparingly? Soil fairly good, granite decomposition.—E.T.P.

Answer: One of the best grasses for rather dry locations is Pacey's rye grass. Another good grass for such a situation is Chewing's fescue. It has a low water requirement since less water is lost by transpiration from the leaves. It also seems to thrive where trees take nearly all the available plant food as well as moisture from the soil. It has the ability to form a thick, close turf which also helps to reduce the evaporation of soil water. One of the blue grasses, Poa trivialis, does very well in shady places but requires a little more water than Chewing's fescue. Bermuda grass and lippia are, of course, also available but do not make a real lawn as do the others named. Seed of the grasses referred to above are available at local seed stores.

Question: Bermuda grass is growing in several places where it is not wanted, particularly in the walks which are partly gravel and partly cement. What method can one use to destroy it? I have used several things that were highly recommended but nothing has been of any permanent benefit.—J.D.

Answer: Bermuda grass can be entirely killed out but unless one sterilizes the soil it may come back, sooner or later. The seeds are distributed by many agencies, as in fertilizers and water and by birds, winds, etc. You have a choice of several chemicals to use, among them the chlorates and arsenicals. W. S. Ball, weed specialist for the State Department of Agriculture, has the following suggestions to make concerning the use of these materials for the purpose required:

"Any chemical that would be used in a driveway that is bordered by perennial plants would cause injury to these plants, as the root systems would extend into the driveway. If you care to use sodium chlorate, suggest about three treatments throughout the winter as the rains have a tendency to leach the chlorate beyond the root systems of the plants. Treat at the rate of one pound of chlorate per hundred square feet at any time now; treat with ½ pound per hundred square feet in January, and ½ pound per hundred square feet in April or May just prior to the last of the rainy season, so that the light rains may carry the material into the upper area but not beyond. This may be applied by means of a spray by dissolving the dosages given in a gallon or so of water, the water being used merely as a carrier. Or it may be applied dry by carefully applying the material in the area to be treated.

"If you care to use arsenic, I suggest the use of 2 pounds of arsenic per hundred square feet. The white arsenic may be put into solution by the use of sodium hydroxide (caustic soda) in the water, as follows: 4 pounds of arsenic by weight to 1 pound of sodium hydroxide by weight and 3 parts of water by weight. Mix the dry ingredients and then add the water, stirring constantly. The material may get quite hot. In case it splashes and bubbles too much, add a little more water. This will give you a 50% arsenic solution. So in mixing your spray material use 4 pounds of this stock solution to 100 square feet. This may also be applied by means of a spray, using enough water to cover the area evenly."

Two precautions should be noted. Sodium chlorate and arsenic should be treated with respect. Care must be observed not to get sodium chlorate on the clothing or shoes when using it as under certain conditions of heat and friction it has been known to burst into flames. Arsenic, of course, is poisonous and the combination of arsenic and sodium hydroxide recommended is quite salty and particularly attractive to animals.

Question: Can you tell me of some sure fire way of getting rid of watergrass? The lawn looks all right in summer but now it is brown and dead. All other grass in the lawn seems to have been choked out. I have this same trouble every fall and would be grateful for any advice or suggestions.—G. M.

Answer: Presuming you have reference to crab grass, also known as water grass, there is not much one can do but remake the lawn. Even then there will probably be enough crab grass seed remaining in the soil, if the lawn is remade in the fall, to cause trouble again next summer. Seeds are produced in very large quantities in the early fall and drop to the ground where they remain until early summer. This grass, as you know, does not come up until the latter part of May or in June and dies down in October and November, after crowding out the permanent grasses. Remaking the lawn in the fall, using plenty of winter-growing grass seed, will give you a good lawn through the winter, spring and early summer. The heavier a stand of grass you can get to grow during this period the longer and harder it will be for crab grass to get a foot-hold.

There are two possible methods of destroying this grass entirely. The first is to let the lawn go until midsummer when the crab grass is well started, and then tear it up. Irrigate frequently to induce the germination of any seed that may be left in the ground and destroy these seedlings as they appear. In the fall when no more crab grass appears, remake the lawn entirely, using plenty of seed. The following season very little crab grass should appear.

The second method is to scrape off two or three inches of the topsoil and discard it entirely, replacing with good soil from an uninfested source. The two or three inches of old soil will contain most of the ungerminated weed seed. After your new lawn is well started watch it carefully for the reappearance of the weed seedlings, particularly in the late spring and early summer, and remove them as they are found. When once a lawn is very heavily infested with crab grass there is very litle that can be done for it other than as above.

Question: Raised hard brown spots are on many grapefruit leaves. Can you tell me what causes this and if there is any remedy?—H.S.

Answer: This condition is known as gum spot. It is neither infectious

nor serious in its consequences. The cause is rather obscure, a number of possible reasons being assigned to account for it. Some authorities say that a slight frost followed by bright sunshine, or possibly a slight sunburning, or even by the application of certain spray materials or fumigation, will cause it. At any rate the trouble is never very severe and no control measures need be instituted. For some unknown reason grapefruit leaves seem to be more susceptible to this condition than do the leaves of other citrus varieties.

A Brief History of the Fuschia

By Alice Eastwood

The genus Fuchsia was established by Plumier, a French botanist and missionary who in 1703 named a beautiful plant which he had collected, "Fuchsia triphylla coccinea." In 1853 Linnaeus established the binomial system of nomenclature and in the first edition of Species Plantarum named it Fuchsia triphylla. Its native home was a mystery until 1884. Thomas Hogg, a sailor brought a beautiful plant to England from Santo Domingo, West Indies, for his mother. It was seen by a nurseryman who bought it and sent it to the Royal Herbarium at Kew to be named. Here, Hemsley recognized it as Fuchsia triphylla. Father Plumier had been known to have made collections of plants in Santo Domingo as well as South America.

With the exception of a few species in New Zealand all are natives of the new world, ranging in the temperate mountain regions from Mexico through South America to Terra del Fuego, the home of Fuchsia magellanica.

Fuchias belong to the Evening Primrose Family but unlike the other members, the fruit is a berry instead of a dry pod. They are alike in having the parts of the flower 4 or 8, the corolla of separate petals and the ovary below the calyx. With a few exceptions the fuchsias have pendant flowers and all have both calyx and corolla colored.

Fuchsia magellancia, introduced in 1788, was probably the first in cultivation. Its many varieties are among the hardiest in our gardens today. According to Hemsley, Fuchsia globosa produced in 1832 was the first hybrid. As the age of a plant is estimated from the seedling stage and all cuttings are really a part of the original, Fuchsia globosa as represented in our gardens today is 105 years old.

Until 1842 all hybrids were in the red and purple shades, when Venus victrix appeared as an accidental hybrid and became the progenitor of the hybrids with white calyx. Of the thousands of hybrids since 1832 but few of the original remain. Today new ones are being raised, especially in California and and the number seems to be unlimited.

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